

17. О таможенном деле в Республике Казахстан : Кодекс Респ. Казахстан, 30 июня 2010 г., № 296-IV ЗРК : в ред. Закона Респ. Казахстан от 29.12.2014 г. // Законодательство стран СНГ [Электронный ресурс] / ООО «СоюзПравоИнформ». Режим доступа: http://base.spininform.ru/show_doc.fwx?rgn=31505 (дата обращения: 31.03.2015).
18. О деятельности таможенных органов : Указ Президента Респ. Беларусь, 13 нояб. 2014 г., № 530 // КонсультантПлюс. Беларусь [Электронный ресурс] / ООО «ЮрСпектр», Нац. центр правовой информ. Респ. Беларусь. Минск, 2015.
19. *Даль В.* Толковый словарь живого великорусского языка : в 4 т. М., 1978. Т. 1.
20. Большой юридический словарь / под ред. А. Я. Сухарева. 3-е изд., доп. и перераб. М., 2009.
21. Большой юридический словарь / под ред. А. Я. Сухарева, В. Д. Зорькина, В. Е. Крутских. М., 1997.
22. Белорусская юридическая энциклопедия : в 4 т. / редкол.: С. А. Балашенко (пред.) [и др.]. Минск, 2007. Т. 1.
23. *Ожегов С. И.* Словарь русского языка / под ред. Н. Ю. Шведовой. 16-е изд., испр. М., 1984.
24. *Шпилевский А. Ф.* Таможенное администрирование у стран Таможенного союза должно быть общим // Государственный таможенный комитет Республики Беларусь : сайт. Режим доступа: http://gtk.gov.by/ru/press-center/news/tamozhennoe-administrirovanie-u-stran-tamozhennogo-sojuza-dolzno-byt-obschim---ashpilevskij_i_3272.html (дата обращения: 30.03.2015).
25. Основные направления совершенствования таможенного администрирования в рамках Таможенного союза в 2012–2015 годах // Евразийская экономическая комиссия : сайт. Режим доступа: <http://www.tsouz.ru/db/dta/Documents/Functions2012.pdf> (дата обращения: 30.03.2015).
26. *Бакаева О. Ю.* Правовые аспекты таможенного администрирования: понятие и признаки // Государство и право. 2009. № 11. С. 94–98.
27. *Пруцак С. Ф.* Инновационное развитие таможенного администрирования внешнеэкономической деятельности : автореф. дис. ... д-ра экон. наук : 08.00.05; 08.00.14. М., 2007.
28. *Гармонников С. Н.* О необходимости совершенствования определений понятий «таможенное дело» и «таможенное администрирование» в Таможенном союзе в рамках ЕвразЭС // Предпринимательство и право : информ.-аналит. портал [Электронный ресурс]. Режим доступа: <http://lexandbusiness.ru/view-article.php?id=1639> (дата обращения: 30.03.2015).
29. Об основах административных процедур : Закон Респ. Беларусь, 28 окт. 2008 г., № 433-З (в ред. от 01.01.2015 г.) // КонсультантПлюс. Беларусь [Электронный ресурс] / ООО «ЮрСпектр», Нац. центр правовой информ. Респ. Беларусь. Минск, 2015.
30. Об административных процедурах, осуществляемых государственными органами и иными организациями по заявлениям граждан : Указ Президента Респ. Беларусь, 26 апр. 2010 г., № 200 (в ред. от 04.12.2014 г.) // КонсультантПлюс. Беларусь [Электронный ресурс] / ООО «ЮрСпектр», Нац. центр правовой информ. Респ. Беларусь. Минск, 2015.

Поступила в редакцию 23.04.2015.

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УДК 351/354.004(470)

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FROM A SMALL STATE TOWARDS A MATURED DIGITAL SOCIETY: THE CASE STUDY OF ESTONIA¹

Опровергается бытующее мнение о том, что цифровое общество может быть построено только в развитых странах. Ошибочность такого представления доказывается в статье на примере анализа подхода электронного правительства Эстонии. Реконструируя модель электронного правительства Эстонии, автор подтверждает гипотезу о том, что небольшой размер государства не оказывает негативного воздействия на развитие электронного правительства (наоборот, небольшой размер имеет некоторые преимущества). Эстонская модель представляет «стратегию выживания» небольшого государства, которое не изобилует богатыми природными и человеческими ресурсами, высокими показателями ВВП, влиятельными позициями на международной арене и, кроме того, несет бремя коммунистического прошлого. Рассматриваются особенности развития эстонской модели электронного правительства; выявляются возможные группы факторов, которые позволили стране стать лидером в области электронного правительства. Делается вывод о возможности применения данных групп факторов для любого государства (с вариациями факторов внутри каждой из групп, учитывая специфические черты определенного государства).

Ключевые слова: инфраструктура электронного правительства Эстонии; факторы успеха в области электронного правительства.

The article argues against the mistaken assumption that a digital society could be built only in developed countries. This is demonstrated by the e-Governance model in Estonia representing a «strategy for survival» of a small state which is not replete with lucrative natural and human resources, high GDP and powerful position in the international arena, and moreover, is burdened by its communist past. The study is motivated by the research question: what affected and contributed to the Estonia's transformation from a small and young state «somewhere in the Baltic region» into a world leader in e-Governance? The author tests the hypothesis of interdependence between a state's size and efficiency of e-Governance drawing the conclusion that a small size of a state does not have a negative impact on the e-Governance implementation (conversely, smallness has some advantages). The article also explores the evolution and peculiarities of the Estonian e-Governance model development, identifies possible groups of factors which enabled Estonia to become a leader in e-Governance, and concludes with the arguments for the possibilities to apply these groups of success factors to any state (with some variations of the factors within each group in accordance with specific features of a particular state).

Key words: Estonia's e-Governance infrastructure; e-Governance success factors.

Estonia is a small post-Soviet country of 45 000 km² with 1,4 million people. It has a short history as an independent state. Nevertheless, in recent years, it has been better known as «cradle» of Skype, country of start-ups and a high-ranking state in e-Governance². According to the United Nations survey, it is one of the world top 15 countries in E-Government Readiness Index [1]. Estonia offers more than 3000 e-services and

¹ Статья публикуется в авторской редакции.

² The term «e-Governance» is often used interchangeably with the term «e-Government» while referencing the same phenomena. Nevertheless, the paper is supposed to use more holistic term «e-Governance», which presents the mixture of «e-Government» and «e-Democracy» concepts and encompasses both services and participatory aspects. The term «e-Governance» complies with the Estonian academic research and practice.

has issued about 200 million of valid digital signatures. 100 % of tax statements are submitted online, 99 % of prescriptions are in a digital form, 90 % of daily parking payments are paid with the help of mobile phones and 25 % of the population vote by Internet. Although it is perhaps hard to believe in these facts, it is a reality.

With the collapse of the Soviet Union, a number of small states have emerged in the political map eager to present themselves to the entire world. It was a choice between whether to start developing their own system with a «clean slate» or adapt without radical changes. Regaining its independence from the Soviet Union in 1991, Estonia decided to catch up with the Western countries and eradicate the Soviet experience burden by building a democratic state, new distinctive image and reputation.

By general consensus among main forces in the Estonian society, it was decided in favour of the extensive development of information and communication technologies (ICT) in order to have a comparative advantage and outweigh the «actual size» of the state by its «functional size». The main contribution was made by the Estonian information technology (IT) community, a loose network of IT-professionals involved in government, business and academia that had an impact on policy decisions for IT-development. The existence of such epistemic community is descended from the Soviet Institute of Cybernetics specialized in software systems, which was established in 1960 as an Institute of the Estonian Academy of Sciences [2]. In 1997 the Institute of Cybernetics was divided into two parts: the Institute of Cybernetics at the Tallinn University of Technology and a R&D intensive ICT company «Cybernetica AS». These parts have remained the driving force in ICT initiatives in Estonia.

The decisive role of political officials in the developing information society and shaping corresponding attitudes of citizens has also had a beneficial effect. Firstly, after the collapse of the Soviet Union the majority of the Estonian politicians were quite young and flexible to any changes. Secondly, the IT-community found a strong support from some progressive and enthusiastic political leaders who were committed to build an efficient state by promoting and implementing innovations in the ICT field. Having a small government budget, these leaders expected to save money in the future by reducing paper expenditures. Among such politicians were, for example, the former Prime Minister Mart Laar as well as the former Estonian Ambassador to the United States and the current President of Estonia Toomas Hendrik Ilves. In this context, a small size of the country was beneficial for the group of political leaders to promote their decisions and encourage the whole territory to adopt them. It is easier and faster to distribute information, provide feedback and coordination in a small state.

In 1993 the IT-community prepared a strategic paper in order to develop «modern, well-functioning state information systems». In the same year, the central government created a budget to provide regular funds in the ICT sector [3]. It can be considered as the starting point for e-Governance development.

Although all changes were directed to alteration of people's behavior, it was quite smooth process without citizens' resistance to electronic innovations. The potential reasons to explain such consent are: Estonia has been following the Scandinavian model in Government-citizen interaction (Government as a partner; result – informed trust); changes were much easier to make in a transitional society where new behavioral norms were only just forming; the strong leadership skills of political reformers helped them to involve people in accepting changes.

The Estonian Government, which did not have enough resources, had to find support from the private sector by building up public-private partnership (PPP). Along with this process the speedy liberalization and privatization of the telecommunications (telecoms) industry were also required. The privatization of the Estonian telecoms sector with foreign investment began in April 1991, when the joint venture Estonian Mobile Telephone Company (AS EMT) was formed by «Eesti Telecom» (51 % of shares), Finnish «Tele» (24,5 % of shares) and Swedish «Telia» (24,5 % of shares) [4]. The liberalization process was connected with development of competitive and free telecoms markets without the state monopoly in ICT.

The key role in PPP for developing e-Governance solutions has belonged to the Estonian banks. In 1996 the banking sector introduced Internet banking, which attracted the majority of Internet users as its clients as well as gave public agencies the opportunity to use the Internet banking identification-verification system to provide government services online [3]. It should be noted that the history of the Estonian Internet banking is only some years younger than the history of the Estonian commercial banking in general. The small banking market was beneficial to launch Internet banking. It helped all Estonian banks to cooperate closely to develop a common payment standard for Internet banking services (Pangalink/Bank Link), which did not require considerable technological expenses.

The established trust in Internet banking and its popularity among the Estonian citizens enabled the government to introduce in tight cooperation with banks in 2002 electronic ID-cards that could be used as a new identification method for online transactions. According to Mary Pedak, «people may not trust their government, but they trust their bank. The early popularity of online banking was a gateway for gaining acceptance of e-Government services within the population» [5]. To generate demand for government e-services banks, in particular, encouraged people to use ID-cards by providing free ID-card readers as well as imposing Internet banking transaction limits to 200 euro for clients who did not use ID-cards.

From the 1990s onward, the Estonian Government has been also collaborating with different countries and regions with regard to support of e-Governance development. The membership of Estonia in the European

Union since 2004 has also facilitated this process. Moreover, the European Commission has been a source of finance in particular e-Governance projects, especially for creating cross-border e-services (for example, PEPPOL project, which deals with e-procurement services in Europe).

In 2002 the Estonian Government agreed on the establishment of the E-Governance Academy to accumulate and share knowledge, fresh ideas and experience in e-Governance as well as stimulate further cooperation between different states. The E-Governance Academy represents a non-governmental, non-profit organization which cooperates with different actors such as public agencies, universities, IT-companies, etc. In fact, the E-Governance Academy along with the IT-community has had a significant role in the development of e-Governance projects.

It should be noted that having achieved remarkable success Estonia has started to employ marketing strategy to brand itself for the external market and enhance reputation as e-State. Branding of political entities takes its beginning in the United States, where each state is associated with particular characteristics [6]. State branding has different functions, such as increasing country's global economic and political status, changing negative stereotypes, increasing country's popularity as a travel destination, unification of citizens by boosting their self-confidence and «we» feeling.

Siiri Same and Maria Claudia Solarte-Vasquez in their paper define two fundamental components of state branding, which are the brand identity (what the country really is and how it chooses to be defined) and the brand image (how the public perceive the country). A state brand can be effective only on condition that its image matches its identity [7]. The Estonia's branding strategy of promoting Estonia globally as a small innovative e-State has had success due to the coincidence between the brand identity and the brand image. Firstly, the state has created the brand identity in order to show its real achievements in e-Governance without imposing the illusory perception of its success on the public. For example, in 2009 the E-Estonia Showroom (ICT demo center) was established to present the most successful Estonian e-Governance solutions to foreign visitors. Secondly, the branding strategy has responded to customer needs, interests and expectations. Society has already reached a high level of maturity in ICT development to demand advanced e-solutions. Thus, the Estonia's brand is clearly understood and appealing to customers. In particular, the current e-Residency project having been launched in October 2014 to promote the Estonian e-services to foreigners must be especially attractive to foreign investors.

The significant factor which also enabled Estonia to build a digital society is definitely time. The success has not come immediately, but it has been rather a long and evolving process. As rightly pointed out by Mary Pedak [5], «everything takes ten years at least». It is a common rule of change management, which can be explained by the fact that people are quite conservative with deeply ingrained habits.

The e-Governance infrastructure in Estonia was formed on the basis of four main components, which have also become important determinants of the Estonia's success in e-Governance: access to Internet, the state web-portal with its digitalized content, the X-Road technology, electronic identification with ID-card based digital signatures. Consistent with the received wisdom in the field [8], access to Internet, which refers to the universal service, is a prerequisite to implement e-Governance concept. Consequently, providing wide access to Internet became a matter of the first concern for the Estonian state. It should be noted that a small territory with a small number of people was beneficial to install fiber-optic cables network for Internet access. Moreover, in order to facilitate e-projects Internet access has been officially declared as a guaranteed human right just as freedom, dignity, equality or other fundamental rights [9]. According to Linnar Viik [10], «...for Estonians, the Internet is a manifestation of something more than a service – it's a symbol of democracy and freedom».

The *Tiger Leap* project was launched in February 1996 to computerize all Estonian schools [11]. The project was based on the idea to start building information society in the educational environment by changing the whole education paradigm. The *Village Road Program* launched in 1998 has also had a significant role in providing fixed Internet access, but with a focus on rural areas [12]. The attention was devoted to guarantee data communication connections at all local governments, schools and libraries.

The next step was to raise ICT awareness of the Estonian population in order to significantly increase the percentage of Internet users from 32 % and to narrow the digital divide. For this purpose, in 2001 the *Look@World Foundation (Vaata Maailma)* was established by nine Estonian private companies [13]. The foundation had many successful campaigns such as free basic training in using computers, Internet and e-services; implementing the online information system for schools; establishing nearly 500 public Internet access points (computer centers in libraries and other municipal buildings).

The first Wireless Internet access (Wi-Fi) hotspots were launched in 2001 covering hotels, cafes, gas stations, coach stations, major tourist attractions, etc. The idea to establish Wi-Fi network in Estonia providing free Internet access belongs to Veljo Haamer, a former computer science student, who conceived the project after visiting the United States. Teamed up with Internet service providers and local businesses, Haamer managed to accomplish the project successfully.

Thus, the above mentioned projects have created a structure for data communication throughout the whole Estonian territory and helped Estonia become a country with a high level of Internet penetration rate (80 %).

The next component of the Estonian e-Governance infrastructure is digitalized information in databases at all levels of government. Estonia has been a pioneer in integrating all government institutions web-sites

to provide a common access point to their information. As early as 1998, the e-Government information portal (www.riik.ee) was launched by the project *Vahetu Riik (Direct Government)* [14]. Together with the fast development of e-services the portal became «an inseparable part of Estonian e-Government and the symbol of Estonia in the Internet» [15]. In 2003 the State portal (eesti.ee) was created on the basis of the previous portal. The State portal is a gateway to most public e-services in Estonia.

The Estonia's digital society is possible largely due to its infrastructure enabled secure two-way communication between citizens and authorities, business and authorities, authorities and authorities. One of the cornerstones of such infrastructure was launched in 2001 and has been known as X-Road [16]. Many specialists share the view that Estonia has started to brand itself as the e-State since the development of X-Road. The X-Road is a data exchange layer, which enables secure and compatible Internet-based data exchange between all state's information systems. In other words, X-Road is based on distributed architecture which is a protection against a single point of failure. The flexibility provided by such open architecture has allowed new databases to be developed and added through the years. Over 170 e-services databases (both in public and private sectors) are connected to X-Road. It is remarkable that X-Road is based on the «citizen-owned data» principle, which means that each data owner is guaranteed the legal right to control his/her personal data, i. e. decide what data is available and who has access to it. For example, a person can decide, which doctor can see his/her personal medical data. In case of unauthorized access to personal data, the system alarms. Consequently, taking into consideration a large amount of data distributed among different information systems, X-Road is designed to ensure the right balance between transparency and information openness for e-Governance on one side and personal data protection on the other.

The last cornerstone of the Estonian e-State and secure data exchange is electronic identification of a user by digital certificate imbedded in the ID-card or SIM-card. As mentioned above, the first ID-cards were issued in January 2002. The Estonian ID-card performs two functions: a primary national identification document and a secure medium for storage of digital signature certificates. The possession of an ID-card is mandatory for all Estonian residents over 15 years old, but the lack of it is not sanctioned. However, it is beneficial to have an ID-card, which is a key to all e-Governance services. Since 2007 it has also become possible to sign documents digitally with the help of a SIM-card (Mobile-ID), which does not require using a card-reader. In Estonia, the Public Key Infrastructure (PKI) is purely based on electronic identification with an ID/SIM-card and integrated into X-Road. The ID-card is equipped with a chip containing electronic personal data as well as two certificates and their associated private keys protected with PIN-codes (the first PIN-code – for authentication, the second one – for digital signing).

According to the Digital Signature Act [17], digital signature is legally-binding and has the same legal power as a hand-written signature. In the terms of the European Union Directive 1999/93/EC [18], the Estonian digital signature is a qualified electronic signature. However, the Estonian digital signature legislation has its own peculiarities, such as the legalization of a time-stamping service and a digital stamp/seal. With regard to a digital stamp, Estonia is one of the few countries in Europe which gave digital stamps legal power by including it in law and separating its functions from a digital signature [19].

To sum up, e-Governance has emerged as a symbol of democracy and freedom in Estonia. The Estonia's e-Governance model is not a deliberate strategy, but it is rather many favorable conditions and appropriate time in which the Estonian Government was able to take advantage. The preconditions were favorable and time was just right for introducing the most radical change in government, organizations and people behaviour. The paper identifies a number of key factors having affected the Estonia's e-Governance success. These factors can be grouped into three categories:

1. *Technology-related factors*: advanced IT epistemic community; Internet banking (the first identification-verification system to provide government services online); network for Internet access across the whole country (cables and Wi-Fi); common access point to governmental digitalized information and e-services (state portal); data exchange layer (X-Road) to provide cross-systems interoperability; PKI with ID/SIM-card identification (more transparent transactions);

2. *Institutional/organizational factors*: political will; citizens' trust in government (the Scandinavian model in Government-citizen interaction); liberalization and privatization of the telecoms industry (competitiveness on the telecoms market); foreign investments in the Estonian telecoms industry; public-private partnership in ICT; strong influence of the Estonian banks; establishment of the e-Governance Academy to facilitate e-Governance development; collaboration between different actors; sensible legal norms in the ICT field; project-based development of e-Governance; campaigns in support of Internet accessibility and ICT awareness; e-State branding; membership in the European Union (initiatives, collaboration between members, funding in particular e-Governance projects);

3. *Contextual/environmental factors*: favorable political conditions and time for changes (transitional society is more flexible to changes, willingness to eradicate the Soviet background); a small size of a state; time-frame («everything takes ten years at least»).

The paper argues that the above classification of factors could be applicable to any state. Nevertheless, the variables within each block of factors could be different. Moreover, the combinations of similar variables could lead to different results for different states. For example, the multiplicity of stakeholders with their individual interests can be considered as an obstacle for e-Governance success in most large states. In Estonia,

conversely, a tight collaboration between completely different actors (government, political reformers, IT-community, private sector, E-Governance Academy, foreign investors, etc.) has facilitated e-Governance implementation.

It should be also noted that the institutional / organizational factors will have a pivotal role in e-Governance success in any country. As a matter of fact that e-Governance can be treated as an integral part of the Governance of a state. Consequently, the Governance's will and policy will have direct impact on the e-Governance model and its outcomes.

The case of Estonia also proves that a small size of a state is not detrimental for e-Governance implementation, but conversely, it has been one of the variables to contribute to e-Governance success in Estonia (for example, it helped to penetrate the whole territory with Internet access; it enabled political reformers to mobilize the whole territory and find consensus among all stakeholders; it benefited to establish a transparent infrastructure for e-Governance by linking all government information systems with their digital content – it is easier to control a small state apparatus).

Overall, the study demonstrates the complexity of the Estonia's e-Governance model. With regard to whether this model or its particular variables can be emulated in other states, it depends on a particular country background, taking into account its political and legal system, social culture.

BIBLIOGRAPHY

1. The United Nations E-Government Survey 2014 : E-Government for the Future We Want // The United Nations E-Government Development Database (UNeGovDD) [Electronic resource]. URL: http://unpan3.un.org/egovkb/Portals/egovkb/Documents/un/2014-Survey/E-Gov_Complete_Survey-2014.pdf (date of access: 13.03.2015).
2. *Kalvet T.* The Estonian Information Society Developments Since the 1990s // PRAXIS [Electronic resource]. URL: http://www.praxis.ee/fileadmin/tarmo/Toimetised/toimetised_29_2007.pdf (date of access: 13.03.2015).
3. *Kitsing M.* Success Without Strategy : E-Government Development in Estonia // Policy & Internet. 2011. Vol. 3, iss. 1. P. 1–21.
4. Estonia (Republic of). Telecommunication liberalization in Estonia // International Telecommunication Union [Electronic resource]. URL: <http://www.itu.int/ITU-D/eur/WTDC02/Documents/13e.pdf> (date of access: 13.03.2015).
5. eServices in Estonia: a success story // The Secure Identity Alliance [Electronic resource]. URL: <http://secureidentityalliance.org/index.php/resources/preview?path=14-06-02-SIA-Estonia%2BVisit%2BReport.pdf> (date of access: 13.03.2015).
6. *Peterson J. E.* Qatar and the World: Branding for a Micro-State // The Middle East J. 2006. Vol. 60, iss. 4. P. 732–748.
7. *Same S., Solarte-Vasquez M. C.* Country Branding and Country Image: Insights, Challenges and Prospects. The Case of Estonia // The Baltic Journal of European Studies. 2014. Vol. 4, iss. 1. P. 137–165.
8. *Nyman-Metcalf K.* e-Governance in Law and by Law. The Legal Framework of e-Governance // Regulating eTechnologies in the European Union: normative realities and trends. Cham, 2014. P. 33–51.
9. Telecommunications Act : approved on 09.02.2000 RT I 2000, 18, 116; repealed 8.12.2004 RT I 2004, 87, 593 // Republic of Estonia. Ministry of Justice [Electronic resource]. URL: <http://www.legaltext.ee/en/andmebaas/tekst.asp?loc=text&dok=X30063K6&pg=1&tyyp=X&query=Telecommunications+Act&ptyyp=RT&keel=et> (date of access: 13.03.2015).
10. *Kingsley J. E.* How tiny Estonia stepped out of USSR's shadow to become an internet titan // The Guardian [Electronic resource]. URL: <http://www.theguardian.com/technology/2012/apr/15/estonia-ussr-shadow-internet-titan> (date of access: 13.03.2015).
11. OECD e-Government Studies. The e-Government Imperative // Google Books [Electronic resource]. URL: <http://books.google.ee/books?id=E7X73oFkV0C&printsec=frontcover#v=onepage&q&f=false> (date of access: 13.03.2015).
12. *Siil I.* Estonia: Preparing for the Information Age // Amazon Simple Storage Service (Amazon S3) [Electronic resource]. URL: http://s3.amazonaws.com/zanran_storage/www.egov.vic.gov.au/ContentPages/16219821.pdf (date of access: 13.03.2015).
13. *Vaata Maailma.* Look@World Foundation [Electronic resource]. URL: <http://www.vaatamaailma.ee/en/> (date of access: 13.03.2015).
14. Estonia Today – e-Estonia. Fact Sheet // Republic of Estonia. Ministry of Foreign Affairs [Electronic resource]. URL: http://vm.ee/sites/default/files/content-editors/web-static/286/E-Estonia_uus.pdf (date of access: 13.03.2015).
15. Best Practices in the European Countries. Baltic Countries: Estonia // Harvard Kennedy School. ASH Center for Democratic Governance and Innovation [Electronic resource]. URL: <http://www.innovations.harvard.edu/sites/default/files/8084.pdf> (date of access: 13.03.2015).
16. X-Road // e-estonia.com. The Digital Society [Electronic resource]. URL: <http://e-estonia.com/component/x-road/> (date of access: 13.03.2015).
17. Digital Signatures Act : approved on 08.03.2000 RT I 2000, 26, 150 // Riigi Teataja [Electronic resource]. URL: <https://www.riigiteataja.ee/en/eli/530102013080/consolide> (date of access: 13.03.2015).
18. Directive 1999/93/EC of the European Parliament and of the Council of 13 December 1999 on a Community framework for electronic signatures : approved on 13.12.1999 // Eur-LexAccess to European Union law [Electronic resource]. URL: <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:31999L0093> (date of access: 13.03.2015).
19. *Ljaš A.* Digital stamp // Estonian Information Society Yearbook 2011-2012. 2012 [Electronic resource]. URL: http://www.riso.ee/sites/default/files/info%C3%BChiskonna%20aastaraamat_2011_ENG_FINAL_0.pdf (date of access: 13.03.2015).

Received 15.04.2015.

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